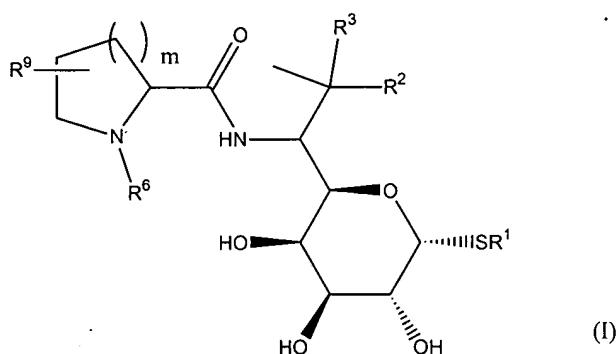


## LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A compound of formula (I):



wherein:

R<sup>1</sup> is alkyl;

R<sup>2</sup> and R<sup>3</sup> are independently H, alkyl, hydroxy, fluoro, or cyanoalkyl or one of R<sup>2</sup> and R<sup>3</sup> is =NOR<sup>7</sup> and the other is absent, or one of R<sup>2</sup> and R<sup>3</sup> is =CH<sub>2</sub> and the other is absent, with the provisos that both R<sup>2</sup> and R<sup>3</sup> are not H; when one of R<sup>2</sup> and R<sup>3</sup> is fluoro, the other is not hydrogen or hydroxy; and when one of R<sup>2</sup> and R<sup>3</sup> is hydroxy, the other is not fluoro, hydrogen, or hydroxy;

R<sup>6</sup> is selected from the group consisting of H, alkyl, hydroxyalkyl, -C(O)O-alkylene-cycloalkyl, -C(O)O-alkylene-substituted cycloalkyl, -C(O)O-alkyl, -C(O)O-substituted alkyl, -C(O)O-aryl, -C(O)O-substituted aryl, -C(O)O-heteroaryl, -C(O)O-substituted heteroaryl, -[C(O)O]<sub>p</sub>-alkylene-heterocycle, -[C(O)O]<sub>p</sub>-alkylene-substituted heterocycle, wherein p is 0 or 1;

R<sup>7</sup> is H or alkyl;

R<sup>9</sup>, which can be singly or multiply substituted in the ring on the same or different carbons, is independently selected from the group consisting of alkyl,

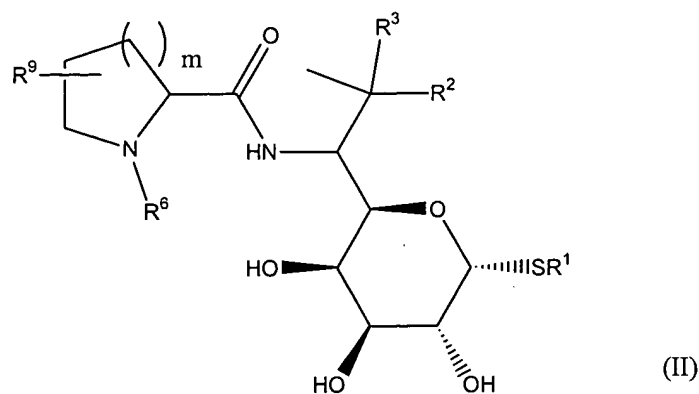
substituted alkyl, alkoxy, substituted alkoxy, alkoxyalkoxy, cycloalkyl, substituted cycloalkyl,  $-OR^d$ ,  $-NR^eR^f$ , halogen, phenyl, substituted phenyl,  $-(CH_2)_n-OH$ ,  $-(CH_2)_n-NR^4R^5$ ,  $-alkylene-R^a$  where  $R^a$  is selected from monofluorophenyl and monochlorophenyl, and branched chain isomers thereof, wherein  $n$  is an integer of from 1 to 8 inclusive and  $R^4$  and  $R^5$  are H or alkyl, wherein  $R^d$  is selected from the group consisting of alkyl, haloalkyl, alkenyl, cycloalkyl, substituted cycloalkyl, aryl, substituted aryl, heteroaryl, and substituted heteroaryl, and wherein  $R^e$  and  $R^f$  are independently selected from the group consisting of H, alkyl, haloalkyl, alkenyl, cycloalkyl, substituted cycloalkyl, aryl, substituted aryl, heteroaryl, and substituted heteroaryl; and

$m$  is 0, 1, 2 or 3;

or a prodrug, tautomer, or a pharmaceutically acceptable salt thereof;

with the proviso that the compound of formula I has a minimum inhibition concentration of  $32\text{ }\mu\text{g/mL}$  or less against at least one of the organisms selected from the group consisting of *Streptococcus pneumoniae*, *Staphylococcus aureus*, *Staphylococcus epidermidis*, *Enterococcus faecalis*, *Enterococcus faecium*, *Haemophilus influenzae*, *Moraxella catarrhalis*, *Escherichia coli*, *Bacteroides fragilis*, *Bacteroides thetaiotaomicron*, and *Clostridium difficile*.

2. (Previously Presented) A compound of formula (II)



wherein:

$R^1$  is alkyl;

$R^2$  and  $R^3$  are independently H, alkyl, or cyanoalkyl, with the proviso that both  $R^2$  and  $R^3$  are not H;

$R^6$  is H, alkyl, or hydroxyalkyl;

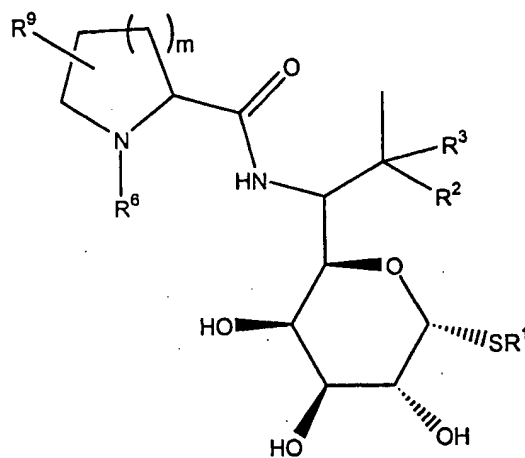
$R^9$ , which can be singly or multiply substituted in the ring on the same or different carbons, is independently selected from the group consisting of alkyl, substituted alkyl, alkoxyalkoxy, cycloalkyl, substituted cycloalkyl,  $-OR^d$ ,  $-NR^eR^f$ , halogen, phenyl, substituted phenyl,  $-(CH_2)_n-OH$ ,  $-(CH_2)_n-NR^4R^5$ ,  $-alkylene-R^a$  where  $R^a$  is selected from monofluorophenyl and monochlorophenyl, and branched chain isomers thereof, wherein  $n$  is an integer of from 1 to 8 inclusive and  $R^4$  and  $R^5$  are H or alkyl, wherein  $R^d$  is selected from the group consisting of alkyl, haloalkyl, alkenyl, cycloalkyl, substituted cycloalkyl, aryl, substituted aryl, heteroaryl, and substituted heteroaryl, and wherein  $R^e$  and  $R^f$  are independently selected from the group consisting of H, alkyl, haloalkyl, alkenyl, cycloalkyl, substituted cycloalkyl, aryl, substituted aryl, heteroaryl, and substituted heteroaryl; and

$m$  is 1 or 2; [[and]]

or a prodrug or a pharmaceutically acceptable salt thereof;

with the proviso that the compound of formula II has a minimum inhibition concentration of 32  $\mu\text{g/mL}$  or less against at least one of the organisms selected from the group consisting of *Streptococcus pneumoniae*, *Staphylococcus aureus*, *Staphylococcus epidermidis*, *Enterococcus faecalis*, *Enterococcus faecium*, *Haemophilus influenzae*, *Moraxella catarrhalis*, *Escherichia coli*, *Bacteroides fragilis*, *Bacteroides thetaiotaomicron*, and *Clostridium difficile*.

3. (Previously Presented) A compound of formula (III):



(III)

wherein:

$R^1$  is alkyl;

$R^2$  and  $R^3$  are fluoro;

$R^6$  is H, alkyl, or hydroxyalkyl;

$R^9$ , which can be singly or multiply substituted in the ring on the same or different carbons, is independently selected from the group consisting of alkyl, substituted alkyl, alkoxyalkoxy, cycloalkyl, substituted cycloalkyl,  $-OR^d$ ,  $-NR^eR^f$ , halogen, phenyl, substituted phenyl,  $-(CH_2)_n-OH$ ,  $-(CH_2)_n-NR^4R^5$ ,  $-alkylene-R^a$  where  $R^a$  is selected from monofluorophenyl and monochlorophenyl, and branched chain isomers thereof, wherein  $n$  is an integer of from 1 to 8 inclusive and  $R^4$  and  $R^5$  are H or alkyl, wherein  $R^d$  is selected from the group consisting of alkyl,

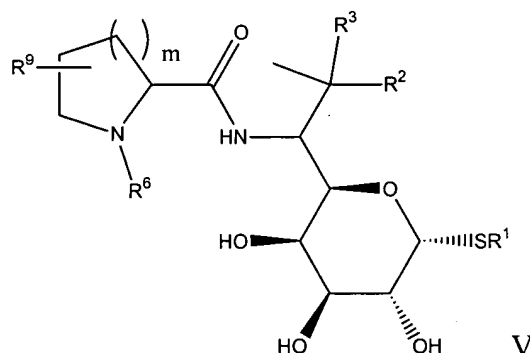
haloalkyl, alkenyl, cycloalkyl, substituted cycloalkyl, aryl, substituted aryl, heteroaryl, and substituted heteroaryl, and wherein  $R^e$  and  $R^f$  are independently selected from the group consisting of H, alkyl, haloalkyl, alkenyl, cycloalkyl, substituted cycloalkyl, aryl, substituted aryl, heteroaryl, and substituted heteroaryl; and

$m$  is 1 or 2;

or a prodrug or a pharmaceutically acceptable salt thereof,

with the proviso that the compound of formula III has a minimum inhibition concentration of  $32 \mu\text{g/mL}$  or less against at least one of the organisms selected from the group consisting of *Streptococcus pneumoniae*, *Staphylococcus aureus*, *Staphylococcus epidermidis*, *Enterococcus faecalis*, *Enterococcus faecium*, *Haemophilus influenzae*, *Moraxella catarrhalis*, *Escherichia coli*, *Bacteroides fragilis*, *Bacteroides thetaiotaomicron*, and *Clostridium difficile*.

4. (Previously Presented) A compound of formula (V):



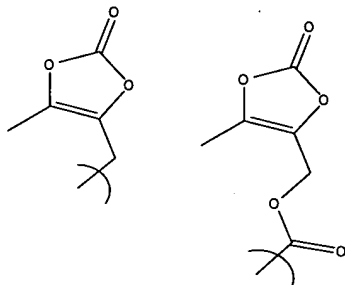
wherein:

$R^1$  is alkyl;

$R^2$  and  $R^3$  are independently H, alkyl, hydroxy, fluoro, or cyanoalkyl or one of  $R^2$  and  $R^3$  is  $=NOR^7$  and the other is absent, or one of  $R^2$  and  $R^3$  is  $=CH_2$  and the other is absent, with the provisos that both  $R^2$  and  $R^3$  are not H; when one of  $R^2$  and  $R^3$  is fluoro, the other is not hydrogen or hydroxy; and when one of  $R^2$  and  $R^3$  is hydroxy, the other is not fluoro, hydrogen, or hydroxy;

$R^6$  is selected from the group consisting of  $-C(O)O$ -alkylene-cycloalkyl,  $-C(O)O$ -alkylene-substituted cycloalkyl,  $-C(O)O$ -alkyl,  $-C(O)O$ -substituted alkyl,

-C(O)O-aryl, -C(O)O-substituted aryl, -C(O)O-heteroaryl, -C(O)O-substituted heteroaryl, -[C(O)O]<sub>p</sub>-alkylene-heterocycle, -[C(O)O]<sub>p</sub>-alkylene-substituted heterocycle, wherein p is 0 or 1 with the proviso that -C(O)O-substituted alkyl does not include the following:



R<sup>7</sup> is H or alkyl;

R<sup>9</sup>, which can be singly or multiply substituted in the ring on the same or different carbons, is independently selected from the group consisting of alkyl, substituted alkyl, alkoxyalkoxy, cycloalkyl, substituted cycloalkyl, alkoxyalkoxy, -OR<sup>d</sup>, -NR<sup>e</sup>R<sup>f</sup>, halogen, phenyl, substituted phenyl, -(CH<sub>2</sub>)<sub>n</sub>-OH, -(CH<sub>2</sub>)<sub>n</sub>-NR<sup>4</sup>R<sup>5</sup>, -alkylene-R<sup>a</sup> where R<sup>a</sup> is selected from monofluorophenyl and monochlorophenyl, and branched chain isomers thereof, wherein n is an integer of from 1 to 8 inclusive and R<sup>4</sup> and R<sup>5</sup> are H or alkyl, wherein R<sup>d</sup> is selected from the group consisting of alkyl, haloalkyl, alkenyl, cycloalkyl, substituted cycloalkyl, aryl, substituted aryl, heteroaryl, and substituted heteroaryl, and wherein R<sup>e</sup> and R<sup>f</sup> are independently selected from the group consisting of H, alkyl, haloalkyl, alkenyl, cycloalkyl, substituted cycloalkyl, aryl, substituted aryl, heteroaryl, and substituted heteroaryl; and

m is 1 or 2;

or a prodrug, tautomer, or a pharmaceutically acceptable salt thereof;

with the proviso that the compound of formula V has a minimum inhibition concentration of 32 µg/mL or less against at least one of the organisms selected from the group consisting of *Streptococcus pneumoniae*, *Staphylococcus aureus*, *Staphylococcus epidermidis*, *Enterococcus*

faecalis, Enterococcus faecium, Haemophilus influenzae, Moraxella catarrhalis, Escherichia coli, Bacteroides fragilis, Bacteroides thetaiotaomicron, and Clostridium difficile.

5. (Original) A compound of claim 1, wherein m is 1 or 2.
6. (Original) A compound of claim 1, wherein R<sup>1</sup> is methyl.
7. (Original) A compound of claim 1, wherein R<sup>6</sup> is H, alkyl, or hydroxyalkyl.
8. (Previously Presented) A compound of claim 1, wherein each R<sup>9</sup> is independently alkyl, substituted alkyl, alkoxy, substituted alkoxy, or cycloalkyl.
9. (Previously Presented) A compound selected from the group consisting of:
  - 4-ethyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;
  - 1-methyl-4-propyl-pyrrolidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;
  - 1-methyl-4-propyl-pyrrolidine-2-carboxylic acid [3-cyano-2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;
  - 4-ethyl-piperidine-2-carboxylic acid [2-hydroxy-2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;
  - 1-methyl-4-propyl-pyrrolidine-2-carboxylic acid [2-hydroxyimino-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;
  - 1-methyl-4-propyl-pyrrolidine-2-carboxylic acid [2-methoxyimino-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;
  - 5-butyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-pentyl-pyrrolidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(3-methyl-butyl)-pyrrolidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-pentyl-pyrrolidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

1-methyl-4-propyl-pyrrolidine-2-carboxylic acid [2,2-difluoro-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-pentyl-pyrrolidine-2-carboxylic acid [2,2-difluoro-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-[3-(4-fluoro-phenyl)-propyl]-pyrrolidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(3,3-difluoro-propyl)-pyrrolidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-[3-(4-chloro-phenyl)-propyl]-pyrrolidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(2,2-difluoro-pentyl)-pyrrolidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-propyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

1-(2-hydroxy-ethyl)-4-pentyl-pyrrolidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

1-(2-hydroxy-propyl)-4-pentyl-pyrrolidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

1-(3-hydroxy-propyl)-4-pentyl-pyrrolidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

1-(2-hydroxy-ethyl)-4-(3-methyl-butyl)-pyrrolidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(3,3-difluoro-propyl)-1-(2-hydroxy-ethyl)-pyrrolidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

1-(2-hydroxy-ethyl)-4-pentyl-pyrrolidine-2-carboxylic acid [2,2-difluoro-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-pentyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-Methoxy-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(1-ethyl-propyl)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-isopropyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-butyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-cyclohexyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-ethyl-1-(2-hydroxy-ethyl)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

1-(2-hydroxy-ethyl)-4-pentyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

1-(2-hydroxy-ethyl)-4-propyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(4,4-difluoro-pentyl)-pyrrolidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(3,3-difluoro-butyl)-pyrrolidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(3,3-difluoro-pentyl)-pyrrolidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(3,3-difluoro-pentyl)-1-(2-hydroxy-ethyl)-pyrrolidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(3,3-difluoro-propyl)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(4,4-difluoro-butyl)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide  
4-(5,5-difluoro-pentyl)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;  
4-(5-fluoro-pentyl)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;  
4-(4-fluoro-butyl)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;  
4-(3-ethyl-3-hydroxy-pentyl)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;  
4-butoxy-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;  
4-pentyloxy-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;  
4-(4-fluoro-butoxy)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;  
4-butyl-pyrrolidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-allyl]-amide;  
1,4-diethyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;  
4-(3-fluoro-propoxy)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;  
4-(3,3,3-trifluoro-propoxy)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;  
4-isobutyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;  
4-propyl-piperidine-2-carboxylic acid [2,2-difluoro-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;  
4-fluoro-4-propyl-pyrrolidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-butyl-4-fluoro-pyrrolidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(2-methoxyethoxy)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-Butyl-pyrrolidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(4,4-Difluoro-pentyl)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(3-Fluoro-propyl)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-Fluoro-4-propyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(2-Fluoroethoxy)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(2-Cyclopropyl-ethyl)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-Cyclopropylmethyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(2-Cyclobutyl-ethyl)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-Cyclobutylmethyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

3-Butyl-azetidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

3-Cyclopropylmethyl-azetidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

3-Propyl-azetidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

3-Butyl-1-(2-hydroxy-ethyl)-azetidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

3-Pentyl-azetidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

3-(3-Methyl-butyl)-azetidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

3-(3-Cyclobutyl-propyl)-azetidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

3-(2-Cyclobutyl-ethyl)-azetidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

3-(2-Cyclopropyl-ethyl)-azetidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

3-(3-Cyclopropyl-propyl)-azetidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

3-Butyl-1-methyl-azetidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-Cyclopropylmethyl-pyrrolidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(2-Cyclobutyl-ethyl)-pyrrolidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(2-Cyclopropyl-ethyl)-pyrrolidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

5-Propyl-azepane-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-butyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(3-Cyclopentyl-propyl)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(3-Methoxy-propyl)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(3-Ethoxy-propyl)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(3-Propoxy-propyl)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(3-Cyclopropylmethoxy-propyl)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-[3-(2-Fluoro-ethoxy)-propyl]-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-[3-(3-Fluoro-propoxy)-propyl]-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(4-Methoxy-butyl)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-Propoxymethyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(3-Fluoro-propoxymethyl)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-Cyclohexylmethyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-(2-Propyloxyethyl)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-Cyclopropylmethoxy-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-Fluoro-4-butyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-Fluoro-4-ethyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-Fluoro-4-(3-fluoropropyl)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-Fluoro-4-(3,3-difluoropropyl)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

4-Fluoro-4-(2,2-difluoroethoxymethyl)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;

and prodrugs, tautomers or pharmaceutically acceptable salts thereof.

10. (Previously Presented) A compound selected from the group consisting of:
- 2-[2-Methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propylcarbamoyl]-4-propyl-piperidine-1-carboxylic acid 9*H*-fluoren-9-ylmethyl ester;
  - 2-[2-Methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propylcarbamoyl]-4-propyl-piperidine-1-carboxylic acid ethyl ester;
  - 2-[2-Methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propylcarbamoyl]-4-propyl-piperidine-1-carboxylic acid phenyl ester;
  - Phosphoric acid mono-(4,5-dihydroxy-6-{2-methyl-1-[(4-propyl-piperidine-2-carbonyl)-amino]-propyl}-2-methylsulfanyl-tetrahydro-pyran-3-yl) ester;
  - Succinic acid mono-(4,5-dihydroxy-6-{2-methyl-1-[(4-propyl-piperidine-2-carbonyl)-amino]-propyl}-2-methylsulfanyl-tetrahydro-pyran-3-yl) ester;
  - N*-(2-Morpholin-4-yl-ethyl)-succinamic acid 4,5-dihydroxy-6-{2-methyl-1-[(4-propyl-piperidine-2-carbonyl)-amino]-propyl}-2-methylsulfanyl-tetrahydro-pyran-3-yl ester;
  - Dimethylamino-acetic acid 4,5-dihydroxy-6-{2-methyl-1-[(4-propyl-piperidine-2-carbonyl)-amino]-propyl}-2-methylsulfanyl-tetrahydro-pyran-3-yl ester;
  - 1-(5-Methyl-2-oxo-[1,3]dioxol-4-ylmethyl)-4-propyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;
  - 2-[2-Methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propylcarbamoyl]-4-propyl-piperidine-1-carboxylic acid 5-methyl-2-oxo-[1,3]dioxol-4-ylmethyl ester;
  - Hexadecanoic acid 4,5-dihydroxy-6-{2-methyl-1-[(4-propyl-piperidine-2-carbonyl)-amino]-propyl}-2-methylsulfanyl-tetrahydro-pyran-3-yl ester;
  - 1-(1-Methyl-3-oxo-but-1-enyl)-4-propyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;
  - 2-[2-Methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propylcarbamoyl]-4-propyl-piperidine-1-carboxylic acid 1-acetoxy-ethyl ester;
  - 2-[2-Methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propylcarbamoyl]-4-propyl-piperidine-1-carboxylic acid 2-amino-3-methyl-pentanoyloxymethyl ester;

2-[2-Methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propylcarbamoyl]-4-propyl-piperidine-1-carboxylic acid piperidine-4-carbonyloxymethyl ester;  
1-(Propionylamino-methyl)-4-propyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;  
*N*-{2-[2-Methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propylcarbamoyl]-4-propyl-piperidin-1-ylmethyl}-nicotinamide;  
1-(2-Amino-propionyl)-4-propyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;  
1-(2-Amino-3-phenyl-propionyl)-4-propyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;  
1-(2-Amino-3-methyl-pentanoyl)-4-propyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;  
1-(2-Amino-3-methyl-butyryl)-4-propyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;  
1-(1-Methyl-1,4-dihydro-pyridine-3-carbonyl)-4-propyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide;  
2-[2-Methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propylcarbamoyl]-4-propyl-piperidine-1-carboxylic acid 1-methyl-1,2,3,6-tetrahydro-pyridin-4-yl ester;  
and tautomers or pharmaceutically acceptable salts thereof.

11. (Canceled)

12. (Previously Presented)      A compound according to claim 9,  
wherein the compound is:  
4-butyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide or a prodrug, tautomer, or a pharmaceutically acceptable salt thereof.

13. (Currently Amended): A compound according to claim 9, wherein  
the compound is:

4-Fluoro-4-propyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide or a prodrug, tautomer, or a pharmaceutically acceptable salt thereof.

14. (Previously Presented) A compound according to claim 9, wherein the compound is:  
4-(2-Cyclopropyl-ethyl)-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide or a prodrug, tautomer, or a pharmaceutically acceptable salt thereof.

15. (Previously Presented) A compound according to claim 9, wherein the compound is:  
4-Cyclopropylmethyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide or a prodrug, tautomer, or a pharmaceutically acceptable salt thereof.

16. (Previously Presented) A compound according to claim 9, wherein the compound is:  
5-Propyl-azepane-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide or a prodrug, tautomer, or a pharmaceutically acceptable salt thereof.

17. (Previously Presented) A compound according to claim 10, wherein the compound is:  
Phosphoric acid mono-(4,5-dihydroxy-6-{2-methyl-1-[(4-propyl-piperidine-2-carbonyl)-amino]-propyl}-2-methylsulfanyl-tetrahydro-pyran-3-yl) ester or a tautomer or a pharmaceutically acceptable salt thereof.

18. (Previously Presented) A compound according to claim 10, wherein the compound is:  
1-(5-Methyl-2-oxo-[1,3]dioxol-4-ylmethyl)-4-propyl-piperidine-2-carboxylic acid [2-methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propyl]-amide or a tautomer or a pharmaceutically acceptable salt thereof.

19. (Previously Presented) A compound according to claim 10, wherein the compound is:  
2-[2-Methyl-1-(3,4,5-trihydroxy-6-methylsulfanyl-tetrahydro-pyran-2-yl)-propylcarbamoyl]-4-propyl-piperidine-1-carboxylic acid 5-methyl-2-oxo-[1,3]dioxol-4-ylmethyl ester or a tautomer or a pharmaceutically acceptable salt thereof.

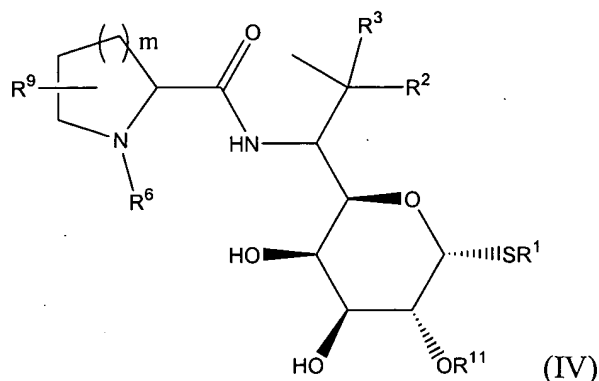
20. (Previously Presented) A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a therapeutically effective amount of a compound of claim 1.

21. (Previously Presented) A method for the treatment of a bacterial infection in a mammal comprising administering to the mammal a therapeutically effective amount of a compound of claim 1.

22. (Previously Presented) The method according to claim 21, wherein the compound is administered to the mammal orally, parenterally, transdermally, topically, rectally, or intranasally in a pharmaceutical composition.

23. (Previously Presented) The method according to claim 21, wherein the compound is administered in an amount of from about 0.1 to about 100 mg/kg of body weight/day.

24. (Previously Presented) A compound of formula (IV):



$R^1$  is alkyl;

$R^2$  and  $R^3$  are independently H, alkyl, hydroxy, fluoro, or cyanoalkyl or one of  $R^2$  and  $R^3$  is  $=NOR^7$  and the other is absent, or one of  $R^2$  and  $R^3$  is  $=CH_2$  and the other is absent, with the provisos that both  $R^2$  and  $R^3$  are not H; when one of  $R^2$  and  $R^3$  is fluoro, the other is not hydrogen or hydroxy; and when one of  $R^2$  and  $R^3$  is hydroxy, the other is not fluoro, hydrogen, or hydroxy;

$R^6$  is selected from the group consisting of hydrogen; 1-(acetyloxy)-ethyl-oxycarbonyl; 1-amino-2-methyl-butyl-carbonyl; 1-amino-2-methyl-butyl-carbonyl-oxy-methyl-oxycarbonyl; 1-amino-2-methyl-propyl-carbonyl; 1-amino-2-phenyl-ethyl-carbonyl; 1-amino-ethyl-carbonyl; 1-methyl-1,2,3,6 tetrahydro-pyridin-4-yl-oxycarbonyl; 1-methyl-1,4 dihydro-pyridin-3-yl-carbonyl; 1-methyl-3-oxo-but-1-enyl; 5-methyl-[1,3]dioxol-2-one-4-yl-methoxy-carbonyl; 5-methyl-[1,3]dioxol-2-one-4-yl-methyl; ethoxy-carbonyl; ethyl-carbonylamino-methyl; fluorenyl-methylene-oxy-carbonyl; phenoxy-carbonyl; piperidin-4-yl-carbonyl-oxy-methyl-oxycarbonyl; and pyridine-3-yl-carbonylamino-methyl;

$R^7$  is H or alkyl;

$R^9$ , which can be singly or multiply substituted in the ring on the same or different carbons, is independently selected from the group consisting of alkyl, substituted alkyl, alkoxy, substituted alkoxy, alkoxyalkoxy, cycloalkyl, substituted cycloalkyl,  $-OR^d$ ,  $-NR^eR^f$ , halogen, phenyl, substituted phenyl,  $-(CH_2)_n-OH$ ,  $-(CH_2)_n-NR^4R^5$ ,  $-alkylene-R^a$  where  $R^a$  is selected from monofluorophenyl and

monochlorophenyl, and branched chain isomers thereof, wherein  $n$  is an integer of from 1 to 8 inclusive and  $R^4$  and  $R^5$  are H or alkyl, wherein  $R^d$  is selected from the group consisting of alkyl, haloalkyl, alkenyl, cycloalkyl, substituted cycloalkyl, aryl, substituted aryl, heteroaryl, and substituted heteroaryl, and wherein  $R^e$  and  $R^f$  are independently selected from the group consisting of H, alkyl, haloalkyl, alkenyl, cycloalkyl, substituted cycloalkyl, aryl, substituted aryl, heteroaryl, and substituted heteroaryl;

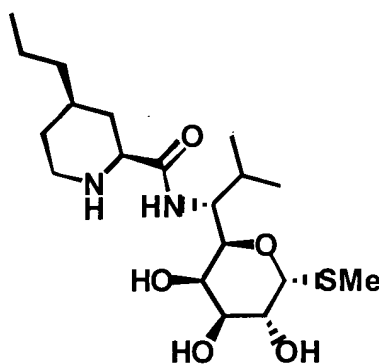
$R^{11}$  is selected from the group consisting of hydrogen; 2-(*N*-(2-morpholin-4-yl-ethyl)-amino-carbonyl)-ethyl-carbonyl;  $-C(O)CH_2CH_2COOH$ ; *N,N*-dimethyl-amino-methyl-carbonyl; pentadecyl-carbonyloxy; and  $-PO_3H_2$ ;

$m$  is 0, 1, 2 or 3;

or a prodrug, tautomer, or a pharmaceutically acceptable salt thereof;

with the proviso that the compound of formula IV has a minimum inhibition concentration of  $32 \mu\text{g/mL}$  or less against at least one of the organisms selected from the group consisting of *Streptococcus pneumoniae*, *Staphylococcus aureus*, *Staphylococcus epidermidis*, *Enterococcus faecalis*, *Enterococcus faecium*, *Haemophilus influenzae*, *Moraxella catarrhalis*, *Escherichia coli*, *Bacteroides fragilis*, *Bacteroides thetaiotaomicron*, and *Clostridium difficile*.

25. (Previously Presented) A compound of the structure:



or a prodrug, tautomer, or a pharmaceutically acceptable salt thereof.

26. (Previously Presented) A pharmaceutical composition comprising a pharmaceutically acceptable carrier and a therapeutically effective amount of a compound of claim 25.

27. (Previously Presented) A method for the treatment of a bacterial infection in a mammal comprising administering to the mammal a therapeutically effective amount of a compound of claim 25.

28. (Previously Presented) The method according to claim 27, wherein the compound is administered to the mammal orally, parenterally, transdermally, topically, rectally, or intranasally in a pharmaceutical composition.

29. (Previously Presented) The method according to claim 27, wherein the compound is administered in an amount of from about 0.1 to about 100 mg/kg of body weight/day.

30. (Previously Presented) A compound of the formula:

